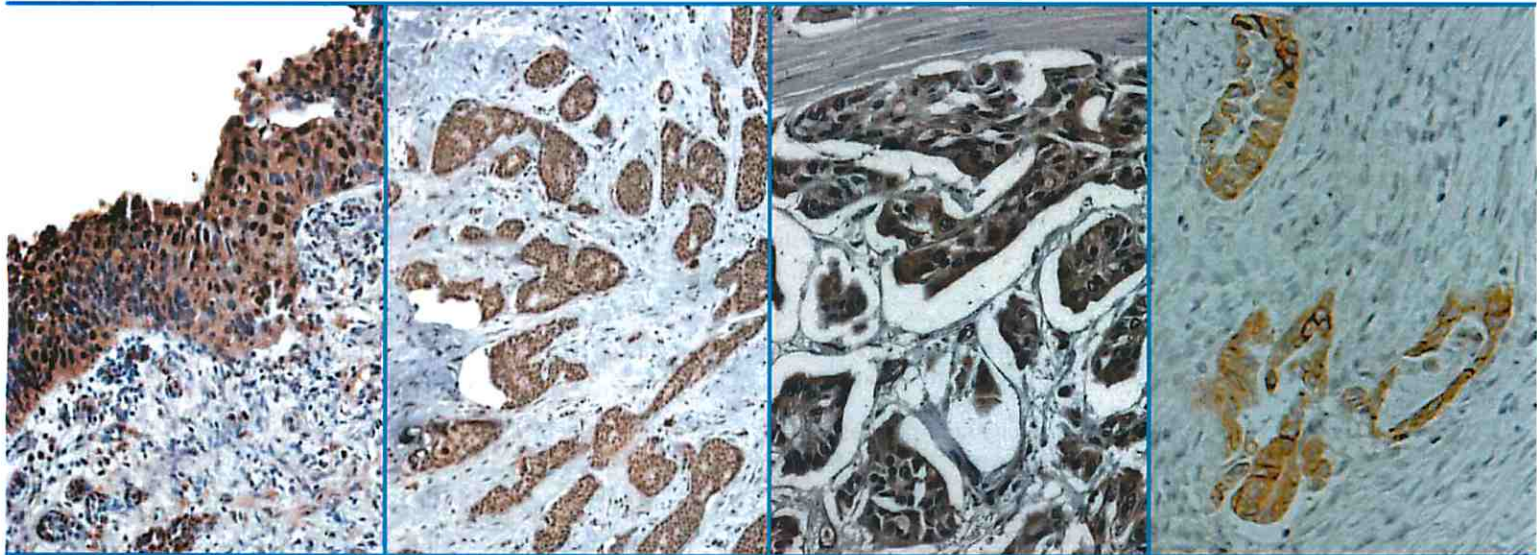


# Publikationen TKTL1 & Apo10

Stand: September 2014



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Die wegweisende Bedeutung der Biomarker **TKTL1** und **Apo10** wird immer wieder eindrucksvoll durch Studien renommierter Forschungsgruppen belegt. Diese Marker sind durch die von TAVARLIN entwickelte EDIM-Technologie nachweisbar und helfen bei vielen onkologischen Fragestellungen.

Eine **Übersicht der relevanten Publikationen nach Fachgebiet** haben wir hier für Sie zusammengestellt.

Diese finden Sie auch immer aktuell unter: [www.tavarlin.com/downloads/TKTL1Publikationen.pdf](http://www.tavarlin.com/downloads/TKTL1Publikationen.pdf)

## 1 Augenheilkunde

Lange CA et al: Enhanced TKTL1 Expression in Malignant Tumors of the Ocular Adnexa Predicts Clinical Outcome. *Ophthalmology*. 2012 Sep;119(9):1924-9. Epub 2012 Jun 1. Universitätsklinikum Freiburg

## 2 Endokrinologie

### Schilddrüsenkarzinom:

Zerilli M et al: Increased expression of transketolase-like-1 in papillary thyroid carcinomas smaller than 1.5 cm in diameter is associated with lymph-node metastases. *Cancer*. 2008 Sep 1;113(5):936-44

## 3 Gastroenterologie

### Rektumkarzinom und Kolonkarzinom:

Bentz S et al: Hypoxia induces the expression of transketolase-like 1 in human colorectal cancer. *Digestion*. 2013;88(3):182-92. Universitätsspital Zürich

Jansen N und Coy JF: Diagnostic use of EDIM-blood test for early detection of colon cancer metastasis. *Future Oncol*. 2013;9(4):605-9.

Schwaab J et al: Expression of Transketolase like gene 1 (TKTL1) predicts disease-free survival in patients with locally advanced rectal cancer receiving neoadjuvant chemoradiotherapy. *BMC Cancer* 2011;11:363. Universitätsmedizin Mannheim

Diaz-Moralli S et al: Transketolase-like 1 expression is modulated during colorectal cancer progression and metastasis formation. *PLoS One*. 2011;6(9):e25323. Epub 2011 Sep 27

Xu X et al: Transketolase-like protein 1 (TKTL1) is required for rapid cell growth and full viability of human tumor cells. *Int J Cancer*. 2009 Mar 15;124(6):1330-7. Deutsches Krebsforschungszentrum Heidelberg

Langbein S et al: Expression of transketolase TKTL1 predicts colon and urothelial cancer patient survival: Warburg effect reinterpreted. *Br J Cancer*. 2006 Feb 27;94(4):578-85. Universitätsmedizin Mannheim

### Magenkarzinom:

Yuan W et al: Silencing of TKTL1 by siRNA inhibits proliferation of human gastric cancer cells in vitro and in vivo. *Cancer Biol Ther*. 2010 May;9(9):710-6. Epub 2010 May

Staiger WI et al: Expression of the mutated transketolase TKTL1, a molecular marker in gastric cancer. *Oncol Rep*. 2006 Oct;16(4):657-61. Universitätsmedizin Mannheim

## 4 Gynäkologie

### Mammakarzinom:

Rotmann A et al: A new diagnostic approach for the early detection and monitoring of breast cancer patients. Poster Glasgow 9th European Breast Cancer Conference (EBCC-9), 19 to 21 March 2014

Rotmann A et al: A new diagnostic test for monitoring of breast cancer patients. Poster, Deutscher Krebskongress 2014

Grimm M et al: A biomarker based detection and characterization of carcinomas exploiting two fundamental biophysical mechanisms in mammalian cells. *BMC Cancer* 2013, 13:569. Universitätsklinikum Tübingen, DKFZ Heidelberg

Rotmann A: The use of new diagnostic tests for the monitoring of new and existing therapies for breast cancer patients. *J. Clin. Oncol., ASCO Meeting Abstracts*. 2013; 31:e22006

Feyen O et al: EDIM-TKTL1 blood test: a noninvasive method to detect upregulated glucose metabolism in patients with malignancies. *Future Oncol*. 2012;8(10):1349-59. Rhönklinikum Bad Berka

Feyen O et al: EDIM blood test: a non-invasive method to detect patients with malignancies. *Cell Symposia* July 6-8, 2012: Poster

Rotmann A et al: Apo10 - a new biomarker for early detection of disorders of cell proliferation and solid tumours. *Int J Gynaecol Obstet* 119, Supplement 3 (2012), S466. Abstrakt Figio

Schmidt M et al: Glycolytic phenotype in breast cancer: activation of Akt, up-regulation of GLUT1, TKTL1 and down-regulation of M2PK. *J Cancer Res Clin Oncol.* 2010 Feb;136(2):219-25. Epub 2009 Aug 5. Universitätsklinikum Würzburg

Rotmann A et al: TKTL1 - a new biomarker and its relevance in the daily gynaecological practice. Poster FIGO 2009

Földi M et al: Transketolase protein TKTL1 overexpression: A potential biomarker and therapeutic target in breast cancer. *Oncol Rep.* 2007 Apr;17(4):841-5. Universitätsklinikum Freiburg

**Endometriumkarzinom:**

Krockenberger M et al: Expression of transketolase-like 1 protein (TKTL1) in human endometrial cancer. *Anticancer Res.* 2010 May;30(5):1653-9. Universitätsklinikum Würzburg

**Ovarialkarzinom:**

Schmidt M et al: Glucose metabolism and angiogenesis in granulosa cell tumors of the ovary: activation of Akt, expression of M2PK, TKTL1 and VEGF. *Eur J Obstet Gynecol Reprod Biol.* 2008 Jul;139(1):72-8. Epub 2008 Apr 3. Universitätsklinikum Würzburg

Krockenberger M et al: Transketolase-like 1 expression correlates with subtypes of ovarian cancer and the presence of distant metastases. *Int J Gynecol Cancer* 2007 Jan-Feb;17(1):101-6. Universitätsklinikum Würzburg

**Cervixkarzinom:**

Chen H et al: Overexpression of transketolase-like gene 1 is associated with cell proliferation in uterine cervix cancer. *J Exp Clin Cancer Res.* 2009 Mar 30;28:43.

Köhrenhagen N et al: Expression of transketolase-like 1 (TKTL1) and p-Akt correlates with the progression of cervical neoplasia. *J Obstet Gynaecol Res.* 2008 Jun;34(3):293-300. Universitätsklinikum Würzburg

**5 Hals-, Nasen-, Ohrenheilkunde**

**Kopf- und Halskarzinom:**

Grimm et al.: Association of cancer metabolism-related proteins with oral carcinogenesis – indications for chemoprevention and metabolic sensitizing of oral squamous cell carcinoma?. *J Transl Med.* 2014 Jul 21;12:208. Universitätsklinikum Tübingen

Grimm et al: GLUT-1+/TKTL1+ coexpression predicts poor outcome in oral squamous cell carcinoma. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2014 Jun;117(6):743-53. Universitätsklinikum Tübingen

Grimm M et al: A biomarker based detection and characterization of carcinomas exploiting two fundamental biophysical mechanisms in mammalian cells. *BMC Cancer.* 2013, 13:569. Universitätsklinikum Tübingen, DKFZ Heidelberg

Grimm M et al: Transketolase-like protein 1 expression in recurrent oral squamous cell carcinoma after curative resection: a case report. *Oral Surg Oral Med Oral Pathol Oral Radiol.* 2012 Jul 20. Universitätsklinikum Tübingen

Hartmannsberger D et al: Transketolase-like protein 1 confers resistance to serum withdrawal in vitro. *Cancer Lett.* 2011 Jan 1;300(1):20-9. Epub 2010 Sep 29. Universitätsklinikum München

Sun W et al: TKTL1 is activated by promoter hypomethylation and contributes to head and neck squamous cell carcinoma carcinogenesis through increased aerobic glycolysis and HIF1alpha stabilization. *Clin Cancer Res.* 2010 Feb 1;16(3):857-66. Epub 2010 Jan 26

Smith IM et al: Coordinated activation of candidate proto-oncogenes and cancer testes antigens via promoter demethylation in head and neck cancer and lung cancer. *PLoS One.* 2009;4(3):e4961. Epub 2009 Mar 23

Völker HU et al: Overexpression of transketolase TKTL1 is associated with shorter survival in laryngeal squamous cell carcinomas. *Eur Arch Otorhinolaryngol.* 2007 Dec;264(12):1431-6. Epub 2007 Jul 18. Universitätsklinikum Würzburg

**6 Neurologie**

**Hirntumor:**

Wanka C et al: Tp53-induced glycolysis and apoptosis regulator (TIGAR) protects glioma cells from starvation-induced cell death by upregulating respiration and improving cellular redox homeostasis. *J Biol Chem.* 2012 Sep 28;287(40):33436-46. Epub 2012 Aug 10.

Wani K et al: A prognostic gene expression signature in infratentorial ependymoma. For the Collaborative Ependymoma Research Network. *Acta Neuropathol.* 2012 May;123(5):727-38. Epub 2012 Feb 10.

**Hirntumor:**

Völker HU et al: Expression of transketolase-like 1 and activation of Akt in grade IV glioblastomas compared with grades II and III astrocytic gliomas. *Am J Clin Pathol.* 2008 Jul;130(1):50-7. Universitätsklinikum Würzburg

## 7 Pulmologie

**Bronchialkarzinom:**

Feyen O et al: EDIM-TKTL1 blood test: a noninvasive method to detect upregulated glucose metabolism in patients with malignancies. *Future Oncol.* 2012;8(10):1349-59. Rhönklinikum Bad Berka

Feyen O et al: EDIM blood test: a non-invasive method to detect patients with malignancies. *Cell Symposia* July 6-8, 2012: Poster

Kayser G et al: Poor outcome in primary non-small cell lung cancers is predicted by transketolase TKTL1 expression. *Pathology.* 2011 Dec;43(7):719-24. Universitätsklinikum Freiburg

Kayser G et al: Lactate-dehydrogenase 5 is overexpressed in non-small cell lung cancer and correlates with the expression of the transketolase-like protein 1. *Diagn Pathol.* 2010 Apr 12;5:22. Universitätsklinikum Freiburg

Prasad V et al: Transketolase-like 1 (TKTL1), a new intracellular marker for staging of non-small cell lung cancer (NSCLC): Correlation with metabolic tumor size on F-18 FDG PET/CT. Poster SNM 2010. Rhönklinikum Bad Berka

Smith IM et al: Coordinated activation of candidate proto-oncogenes and cancer testes antigens via promoter demethylation in head and neck cancer and lung cancer. *PLoS One.* 2009;4(3):e4961. Epub 2009 Mar 23

## 8 Urologie

**Prostatakarzinom:**

Grimm M et al: A biomarker based detection and characterization of carcinomas exploiting two fundamental biophysical mechanisms in mammalian cells. *BMC Cancer.* 2013, 13:569. Universitätsklinikum Tübingen, DKFZ Heidelberg

Arnoldt J: Therapy monitoring and early detection of metastasis using tumor protein detection in macrophages. *Anticancer Research* ISSN 0250-7005: 2011 May:2012

**Urothelialkarzinom:**

Langbein S et al: Expression of transketolase TKTL1 predicts colon and urothelial cancer patient survival: Warburg effect reinterpreted. *Br J Cancer.* 2006 Feb 27;94(4):578-85. Universitätsmedizin Mannheim

**Nephroblastom:**

Wu HT et al: Anaplastic nephroblastomas express transketolase-like enzyme 1. *J Clin Pathol.* 2009 May;62(5):460-3. Epub 2009 Jan 12

**Nierenkarzinom:**

Langbein S et al: Metastasis is promoted by a bioenergetic switch: new targets for progressive renal cell cancer. *Int J Cancer.* 2008 Jun 1;122(11):2422-8

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